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Ballast device for a discharge lamp

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5 The invention relates to a ballast device for a
discharge lamp, having a DC voltage supply stage,
semiconductor switches which are switched at a
radiofrequency clock frequency for the purpose of
changing the current direction through the discharge
lamp, a starting transformer, to which the DC voltage
of the DC voltage supply stage can be supplied via a
10 series capacitor, and a ballast inductance which is
connected to an electrode, not connected to the
starting transformer, of the discharge lamp.

15 Numerous embodiments are known for ballast devices for
discharge lamps, such as arc lamps. The common factor
with these ballast devices is the fact that the current
direction of the ignited arc in the discharge lamp
needs to be changed continuously in order to prevent
one of the electrodes being exhausted at one end.

20 It is known for the current direction to be reversed
even at a very high clock frequency of, for example,
300 to 400 kHz. In this case, resonance phenomena in
the discharge lamp are reliably prevented, since
25 resonances of the discharge lamps are at markedly lower
frequencies. Radiofrequency clocking makes it possible
for the ballast device to be small in size, since
comparatively low inductances are required.
Furthermore, the ballast device run quietly and largely
30 without any harmonics.

The DC voltage is supplied from the DC voltage supply
stage, which is preferably in the form of a step-up
converter, via a series capacitor which is required for
35 recharging purposes for the change in current
direction. The series capacitor is dimensioned such
that approximately half the voltage supplied from the
DC voltage supply stage is present across it, with the